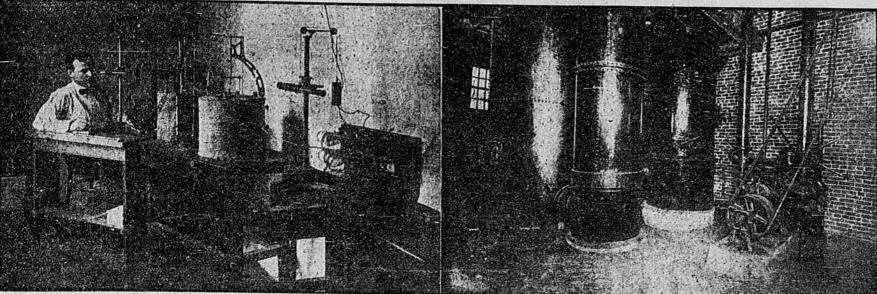
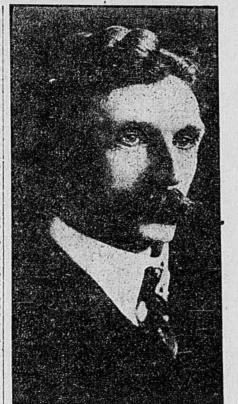
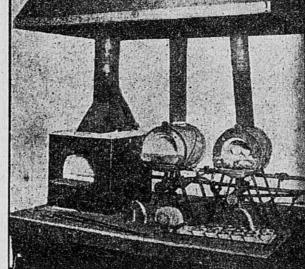
Uncle Sam Losing Millions---Enormous Waste Which Bureau of Mines Designs to Prevent---Leaks Cost a Million a Day



RANK G. CARPENTER.





the Bureau of Mines, who knows more that 30 per cent, or more is lost.

about our fuel resources than any other man in the county. He says that fully naif the coal is left in the mines. Coals and making experiments to get and that of the amount gotten out in the production of steam we lose from \$22 to 95 per cent. or more is lost.

Uncle Sam has been testing our various four-cycle. The coals and making experiments to get and that of the amount gotten out in great heating station at Pittsbugh, up-to-date with all kinds of apparatus for testing the coal, and he has been making spectations of the coal, and he has been making spectations of the coal and he has been making spectations.

The sam has been testing our various four-cycle. The production of steam we lose from great heating station at Pittsbugh, with all kinds of apparatus for testing some instation. The coals and making experiments to get four-cycle. The production of steam we lose from great heating station at Pittsbugh, up-to-date the coals and making experiments to get four-cycle. The production of steam we lose from great heating at the coal is and making experiments to get four-cycle. The production of steam we lose from great heating at the coal is and making experiments to get four-cycle. The production of steam we lose from great heating at the coal is an article of the production of the coal is and making experiments to get four-cycle.

the gas passes out through a pipe into a gas engine in which it produces the power. In this process the saving is so great that a 600-horsepower gas engine will save \$5,000 a year in its coal bills over the same power steam nills over the same power steam now power steam now power gas engine would amount to something like \$12,000 a year. Indeed, the saving is so great that many of our factories are discarding the steam plants and introducing the gas producer. It is now used in the subways of New York, and at hundreds of other stations over the country.

Will Turn Lignite to Money.

These improvements in the use of coal will turn our lignite into money, and will add billions of dollas to our national wealth. The lignite coal is too poor for profitable use in connection with steam, but by means of the form with steam, but by means of the power.

In this process the saving is so great that it producer. It is estimated that the the same as a million with steam, while we are burning in. At the same time we are burning more and more coal. We now consumptions and the doctors say that this coal simulate the same as a million continued to same and the doctors say that this coal simulate to Money.

Will Turn Liguite to Money.

These improvements in the use of coal will turn our lignite into money, and will add billions of dollas to our national wealth. The lignite coal is too poor for profitable use in connection with steam, but by means of the producer.

Hatt Our Coal Wasted.

The chief work of the Bureau of Mines has so far been devoted to stopy the profit of the same as a million with steam, but by means of the property of the same as a million was a fine producer.

The chief work of the Bureau of Mines has so far been devoted to stopy in the waste. I have already writ-

These improvements in the use of coal will turn our lightle into money, and will add billions of dollas to our national wealth. The lightle coal is too poor for profitable use in connection with steam, but by means of the gas producer it will develop as much power as the Pennsylvania and West. I have already writing the wast. I

would ordinarily go to waste. They come from the furnaces, and the fuel costs nothing. It will be so with every large plant of the future.

Gas for Our Navy. They are putting gas engines on the great ships of the world, and they will be eventually used by th navies of the future. Professor Fernald says that the United States will probably distance the other nations in this regard. He advises that our gunboats be furn by say instead of steem saying gard. He advises that our gunboats be run by gas instead of steam, saying that the gas will make no smoke, and that it can be made in the producer, which has no chimney and needs none. He says the coming war vessel will be a swift, smokeless, noiseless craft, ly-ing now in the water, the entire deck being given over to the work of the guns. At night there will be nothing to show the presence of the ship to the enemy.

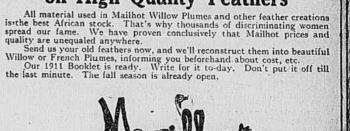
Gas engines are now being used on some of the big ocean liners, and it is said that the steamships of the Great Lakes are about to adopt them. One of the big freighters there has plans for a 2.000-horsepower gas engine of the marine type, the idea being that its use will save a great deal of coal. As to the ocean liners, some of them consume as much as 16.000 tons of high-grade coal on a round trip. With a gas engine this could be cut to 6.000, with a saving of hundreds of dollars a day. Gas engines are now being used on

a day.

The Passing of the Smoke. The Passing of the Smoke.

The passing of the Smoke.

The gas producer experiments show, so I am told at the Bureau of Mines, that smoke can be practically obliterated from our large manufacturing cities. As it is now the most of the smoke comes from the railroads and factories. It is estimated that 600 tons of soot a day are dropped into Chicago by the locomotives and that 40 per cent. of all the smoke of that city comes from the railroads. With gas producing plants the immense switch yards there could be operated by electricity and the same force could be supplied to the factories. The saving to the buildings would be enormous. Chicago is said to be damaged to the extent of \$50,000,000 a year by its smoke, and Cleveland losss \$4,000,000 from the



We'll Save You Money

on High Quality Feathers

French Feather Dyer and Dresser 1510 CHESTNUT

'At the Sign of the Golden Ostrich" **PHILADELPHIA**

capital equal to that of the United States steel trust and half a dozen or our big, railroad systems.

The gross waste is the extraction and treatment of our minerals in 1907, was more than \$300,000,000, and of the 40°C, 000,000 tons of coal which we annually take out of the earth we leave another 400,000,000, in such a condition that it can never be mined.

and power values of coal sent in from all parts of the country. They were analyzing the samples sent in by bid, ders for the government contracts and finding out just how much moisture and ash and heat or power each con-At the present time about forty of

tained.

At the present time about forty of the public buildings here in Wash-ington and 300 other buildings belonging to the government scattered over the country are supplied with coal on such tests. It is the same with the Panama railroad and our navy yards. All the fuel is bought direct through competitive bids and it must be up to the specifications. A premium is paid for any decrease in the amount of ash below the standard and deductions are made when the ash exceeds the standard by more than 2 per cent.

The samples of coal when they come in are ground to a dust as fine as face powder, and a thimbleful of this, or one dram, is enough for a test. This amount is first examined for moisture. It is put in a little cup of bone ash and then left in a furnace which registers just the amount of moisture that comes out of the coal. After this the thimbleful or clal is put into another furnace, which is exceedingly hot. It burns it to ashes, and the ashes left in the cup show proportionately the amount of ash in the coal.

An even more interesting process is the discovery of how much heat or power the coal has. This is more important than anything else. The government does not want to pay for water nor ashes, both of which it must handle and the latter of which it must cart away. It is buying heat and pover, and it watches the scales as you.

handle and the latter of which it must cart away. It is buying heat and pov-er, and it watches the scales as you watch your grocer when weighing some sugar or meat. The power is tested by placing a thimbiful of coal inside a metal cylinder which is then charged with oxygen. This cylinder is placed in a tin can of water and by means of electricity the coal is exploded. Ad-cording as it is rich or poor the ex-plosion is greater or less, and the quality is known by the rise in the temperature of the water caused by the explosion. The (Copyright, 1911, by Frank G. Carpen-ter.)

Ice Creams—Puddings—Biscuit Made With Germless Milk

Madam, here is a question—a daily question—of prime importance to you and yours. Pray give us a moment's hearing.



There are myriads of women who have ceased the use of raw, germ-laden milk. Some have done it for safety, some for economy, some to get better food. They are using Van Camp's-a sterile milk

from pure-bred Holstein cows. They get a whole, rich milk with the whole-milk flavor. They make milk dishes with it such as milkman's milk never They have it always on hand - the cow right

in the pantry. And their milk bills, since they started, have been cut in two.

All of those benefits are open to you in this

Thick as Thick Cream

Van Camp's Milk as it comes to you is as thick as thick cream. So thick that you add one part water for coffee, for cooking or ice cream. It is 28 per cent solids-8 per cent butter fat,

This is how we reduce it:

Van Camp Packing Co.

The milk fresh from the cow is put into a vacuum. There we evaporate two-thirds of the water, just to save shipping bulk. On account of the vacuum, the water

is evaporated in a mod-Peach Ice Cream erate heat, without reach ice Cream
Mix two cans of Van
Camp's Milk with one can
of cold water that has
been boiled. Dissolve in
this three-fourths pound
of granulated sugar, turn
into the freezer and freeze.
Pare and seed one quart
peaches. Mash these and
mix in the frozen cream.
Crank the freezer several
times and let harden.
Write for our book of 131
recipes, including all sorts
of ice cream.
Van Camp Packing Co. scorching.

Nothing is added, as there is to condensed milk-no sugar, no starch, no preservative. Nothing is subtracted save water. When you put back that water the milk is the same-save for sterilization-as it was when it came from the cow.

Utterly Sterile

The evaporated milk is sterilized by heat-after the can is sealed. The milk when you get it is utterly sterile. Not a germ of any kind can exist

Raw milk, as you know, contains millions of germs. Van Camp's contains none at all. This sterilization is now considered essential. Careful people won't use milk without it.

Whole-Milk Flavor

Milk dishes made with Van Camp's Milk are exceedingly rich and savory. Dishes made of milkmen's milk cannot compare with them.

Some women think that this flavor is due to something artificial, but it isn't. It is simply the flavor of whole, rich milk.

Milkmen's milk separates. The butter fat rises and the solids fall. When that milk gets to the cooking it is rarely more than a half-milk.

Van Camp's cannot separate. It contains too little water. So it brings to your milk dishes the whole-milk flavor. When you learn what that

Milk Bills Cut in Two

When Van Camp's is reduced to the usual milk's richness the cost will figure about six cents per quart.

The saving lies in the cost of daily deliverythe main cost of milkman's milk. We save that

Then Van Camp's saves waste. You have no milk left over. You never run short. You open a can when you need it, and it keeps till you use

This saving in cost and the saving in waste mean a saving of half on your milk bills.

Cost Us \$100,000

The seven years spent in perfecting this milk have cost us \$100,000. The ablest Swiss and Dutch experts have been engaged on it. All to give you an unscorched milk-changeless and utterly sterile.

Our cows are Holsteins, constantly inspected. Our dairies are models of cleanliness. Our evaporating plants are built without wood.

You get the best milk produced in America, at the price of the ordinary, when you get Van Camp's.

The 16-oz. cans-a full pint-costs 10 cents. The 6-oz. can costs 5 cents. Your grocer has it, shipped from our nearest dairy.



Van Camp's Milk Evaporated—Sterilized—Unsweetened



Gains 30 Pounds

of Run-Down Men and

In 30 Days

been thin for years, and began to think it was natural for me to be that way. Finally I read about the remarkable successes brought about by the use of Protone, so I decided to try it myself. Well, when I look at myself in the mirror now I think it is somebody else. I have put on just 20 pounds during the last month, and never feit stronger or more 'nervy' in my life."

Free Protone Coupon

It will cost you nothing to prove the remarkable effects of this treatment. The Protone Company will send to any one a free 50c package of Frotone It they will fill out this coupon and entered to the send of th

The Protone Co., 4164 Protone Bldg., Detroit, Mich.

City .		State